

REMARKS

Prior to this amendment, claims 1-46 were pending. Applicants have amended claims 1, 3 and 34, cancelled claim 2, and added new claims 47 and 48. Accordingly, claims 1, and 3-48 are presented, with claims 1, 36 and 47 being in independent form.

Rejection under 35 U.S.C. 112

The Action rejected claim 34 under 35 U.S.C. 112 as being indefinite. Applicants have amended claim 34 so that it depends from claim 30 instead of claim 32. Accordingly, Applicants request withdrawal of this rejection.

Prior Art Rejections

Independent claim 1

As amended, claim 1 includes the limitation of originally-filed claim 2, which was rejected in the Action under 35 U.S.C. 103(a) as being unpatentable over EP 060085 ("Katsuyama et al.") in view of U.S. Patent 6,542,690 ("Ellison et al."). The Action admits that "[Katsuyama et al.] discloses use of a flame MCVD deposition process rather than a ... plasma method for depositing the glass," but states that "because Ellison discloses ... that deposition of chalcogen-containing glass using ... PECVD alleviates the problem of unwanted decomposition of reactant materials which leads to byproducts or physical defects in the glass, it would have been obvious to have used the plasma CVD method to deposit the chalcogenide glass layers to prevent unwanted decomposition of reactant materials" (Office Action, pages 3-4).

Applicants traverse for the following reasons. Firstly, the objectives of Ellison et al. are not relevant to the teachings of Katsuyama et al. As a result, there is no suggestion or motivation to modify the methods in Katsuyama et al. based on the teachings of Ellison et al. to provide a method that includes "exposing a surface to a first gas composition under conditions sufficient to deposit a layer of a first chalcogenide glass on the surface, wherein exposing the surface to the first gas composition comprises activating a plasma in the first gas composition," as required by claim 1.

Ellison et al. are concerned with forming “optical waveguide fiber[s]” by doping silica core compositions with small amounts of a chalcogen element to raise the refractive index of the core (Ellison et al., abstract).

In contrast, Katsuyama et al. are concerned with “producing infrared optical fiber with low transmission loss” (Katsuyama et al., page 3, lines 20-26) for wavelengths at which silicate glass has high absorption, namely wavelengths above about 2 μm (id., page 1, lines 5-10). To achieve this, Katsuyama et al. discloses methods for making optical fiber from chalcogenide glasses that include depositing a chalcogenide glass, not a silicate glass, onto the inner surface of a tube by means of heating of reactant materials (id., page 9, lines 1-17).

Moreover, one of ordinary skill in the art would not be motivated to modify the methods disclosed in Katsuyama et al. according to the teachings of Ellison et al. based on the rationale presented in the Office Action because, according to Katsuyama et al., their methods have solved “the problems of contamination of impurities” (id., page 3, lines 24-26). Katsuyama et al. asserts that “[a]ccording to the present process, infrared optical fiber of high performance can be produced without the problems, that is, without any fear of contamination of impurities and any necessity for melting for a prolonged time” (id., page 4, line 27 – page 5, line 3, emphasis added). Katsuyama et al. further affirms that the occurrence of physical defects in the deposited glass layers is lowered, since “the present process has such advantages as less chances for contamination of a product with impurities and unnecessary [*sic*] for melting for a prolonged period for homogenizing the composition...” (id., page 13, lines 8-11). Thus, one would not modify Katsuyama et al.’s methods based on the teachings of Ellison et al. because “unwanted decomposition of reactant materials [leading] to byproducts or physical defects in the glass” is not a concern of Katsuyama et al.

In fact, the rejection is a hindsight reconstruction, using claim 1 as a template to reconstruct the invention by picking and choosing isolated disclosures from the prior art. This is impermissible under the law. For example, in *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992), the Federal Circuit stated:

It is impermissible to use the claimed invention as an instruction manual or “template” to piece together the teachings of the prior art so that the claimed

invention is rendered obvious. *In re Gorman*, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). This court has previously stated that “[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.” (quoting *In re Fine*, 837 F.2d at 1075, 5 USPQ2d at 1600)

The present rejection fits the court’s description of what may not be done under § 103. The examiner has merely listed certain components of Applicant’s invention and then located isolated disclosures of those components. The law requires more than that.

In view of the foregoing, Applicants submit that claim 1 is not obvious in view of the cited prior art references and ask that the rejection under 35 U.S.C. §103 be withdrawn.

Claims 3-35 depend from claim 1 or from claims that depend from claim 1. Accordingly, Applicants submit that claims 3-35 are also allowable for at least those reasons set forth above in connection with claim 1. Applicants therefore ask that the prior art rejections of these claims also be withdrawn.

Independent claim 36

The Action rejected claim 36 under 35 U.S.C. §102(b) as being anticipated by Katsuyama et al. However, Katsuyama et al. does not disclose methods that include “exposing [a] first gas composition [comprising a first compound that is substantially inert with respect to a first material forming the inner surface of a tube] to conditions sufficient to change the first compound into a second compound reactive with the first material,” as required by claim 36.

Rather, Katsuyama et al. discloses methods for depositing a chalcogenide glass onto the inner wall of a glass tube by thermally decomposing raw materials within the tube (Katsuyama et al., page 4, lines 5-16; page 9, lines 13-15). This involves a “chemical vapor reaction” (id., page 14, line 4). In other words, the raw materials react with each other to deposit the chalcogenide glass on the tube wall. There is no indication that any compound formed from the raw materials in Katsuyama et al.’s methods react with the glass tube material.

Accordingly, Applicants submit that Katsuyama et al. does not anticipate claim 36 and ask that the rejection of this claim under 35 U.S.C. §102 be withdrawn.

Claims 37-46 depend from claim 36 or from claims that depend from claim 36. Accordingly, Applicants submit that claims 37-46 are also allowable for at least those reasons set forth above in connection with claim 36, and Applicants ask that the prior art rejections of these claims be withdrawn.

New Claims

Independent claim 47

New independent claim 47 is directed to methods that require “exposing a surface to a first gas composition under conditions sufficient to deposit a layer of a first chalcogenide glass on the surface; and exposing the layer of the first chalcogenide glass to a second gas composition under conditions sufficient to deposit a layer of a second glass on the layer of the first chalcogenide glass, wherein the second glass is a non-chalcogenide glass.”.

As noted above, Katsuyama et al. discloses methods for depositing a chalcogenide glass onto a different glass, not a non-chalcogenide glass onto a chalcogenide glass (see, e.g., Katsuyama et al., page 4, lines 13-16). Ellison et al., in contrast, disclose methods for doping an oxide glass with small amounts of a chalcogen element (see, e.g., Ellison et al., col. 5, lines 35-43). Neither Katsuyama et al. nor Ellison et al., either alone or in combination, disclose or suggest methods that include “exposing a surface to a first gas composition under conditions sufficient to deposit a layer of a first chalcogenide glass on the surface; and exposing the layer of the first chalcogenide glass to a second gas composition under conditions sufficient to deposit a layer of a second glass on the layer of the first chalcogenide glass, wherein the second glass is a non-chalcogenide glass.”

Accordingly, Applicants believe this claim is in condition for allowance, which action is requested.

Claim 48 depends from claim 47 and should be allowable over the cited prior art for at least the same reasons as claim 47.

Conclusion

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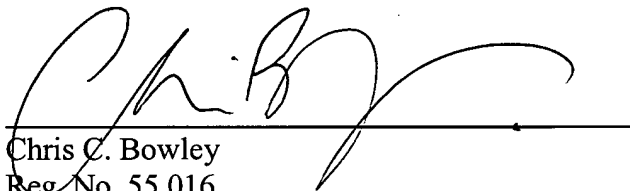
Attorney's Docket No.: 13445-026001 / OG-16

Applicants submit that all claims are in condition for allowance, which action is requested.

Enclosed is a \$25 check for excess claim fees and a \$60 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050, referencing Attorney Docket No. 13445-026001.

Respectfully submitted,

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